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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,846	03/22/2004	Ming Li	MATG-406US	3029
23122	7590	12/12/2007		
RATNERPRESTIA P O BOX 980 VALLEY FORGE, PA 19482-0980			EXAMINER HEINRICH, SAMUEL M	
			ART UNIT	PAPER NUMBER
			1793	
			MAIL DATE	DELIVERY MODE
			12/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/805,846	LI, MING	
	<b>Examiner</b>	<b>Art Unit</b>	
	Samuel M. Heinrich	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US20020170898A1 to Ehrmann et al in view of USPN 5,293,389 to Yano et al in view of JP357097886A.

Ehrmann et al describe a diffraction limited system for machining and describe [0104] improving processing speed with a modified elliptical spot and fluence at the workpiece. Ehrmann et al describe [0139] forming a variable elliptical beam and "variable elliptical spots as a result of Gaussian beam propagation". Ehrmann et al describe [0144] selecting the output polarization for the beam such as circular polarization. Ehrmann et al show (Figure 11) elliptical and circular beam shape. Ehrmann et al show (Figures 13a-13c) the elliptical spot path direction. Ehrmann et al describe [0104] control of the area of the spot, and inherently control of the fluence. Ehrmann et al shows (Figures 19-21) and describes ([0005][0006][0094][0100][0104]) control of fluence in order to minimize substrate damage.

With respect to the Ehrmann et al circular polarization, Yano et al describe (column 5, lines 43-54) old and well known control of a beam with respect to changing a linear polarized beam into a circular or elliptically polarized beam and operation of

Ehrmann et al with the elliptically polarized beam would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art.

With respect to the fluence described in Ehrmann et al, JP357097886A shows (Figure 4) control of beam intensity across the spot and describes fluence control and the similar control of spot intensity in Ehrmann et al would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art.

The instant claimed elliptically polarized light and the fluence control would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the control provides application of desired shape spot energy.

Claims 1-3 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US20020170898A1 to Ehrmann et al in view of USPN 5,293,389 to Yano et al in view of USPN 6,433,301 to Dunskey et al.

Ehrmann et al describe a diffraction limited system for machining and describe [0104] improving processing speed with a modified elliptical spot and fluence at the workpiece. Ehrmann et al describe [0139] forming a variable elliptical beam and "variable elliptical spots as a result of Gaussian beam propagation". Ehrmann et al describe [0144] selecting the output polarization for the beam such as circular polarization. Ehrmann et al show (Figure 11) elliptical and circular beam shape. Ehrmann et al show (Figures 13a-13c) the elliptical spot path direction. Ehrmann et al describe [0104] control of the area of the spot, and inherently control of the fluence. Ehrmann et al shows (Figures 19-21) and describes [0005][0006][0094][0100][0104]) control of fluence in order to minimize substrate damage.

Yano et al describe (column 5, lines 43-54) well known control of a beam with respect to changing a linear polarized beam into a circular or elliptically polarized beam.

Dunsky et al show (Figures 5A-5C and Figure 9) fluence distributions. Dunsky et al describe ideal fluence distributions at the work surface which produce improved cutting and reduced surface damage.

The instant claimed elliptically polarized light and the fluence control would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the control provides application of desired shape spot energy.

#### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Susemihl describes "it is common in the industry to convert linearly polarized beams to circularly polarized beams" and describe "elliptically polarized, circularly polarized, or linearly polarized light".

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. Johnson can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

  
Samuel M Heinrich  
Primary Examiner  
Art Unit 1725

SMH